immersing the plating barrel and the graphite particles contained therein in an aqueous electrolyte media comprising an acid and an oxidizing agent;

subjecting the immersed graphite particles to an anodic current;

rotating the plating barrel;

removing the graphite particles from the electrolyte and rinsing the graphite particles with a solvent; and

removing the excess electrolyte and solvent from the graphite particles.

2(original). The method of Claim 1 wherein the electrolyte comprises H_2SO_4 for the acid and HNO_3 for the oxidizing agent.

3(original). The method of Claim 2 wherein the electrolyte comprises between approximately 99 Vol.% and 50 Vol.% of 66 Wt.% H_2SO_4 and between approximately 1 Vol.% and 50 Vol.% of 40 Wt.% HNO_3.

4(original). The method of Claim 1 or Claim 3 wherein the density of the current to which the immersed graphite particles are subjected is between approximately 0.1 mA and 5A per gram of graphite.

5(original). The method of Claim 4 wherein the immersed graphite particles are subjected to the anodic current for between approximately 1 minute and 180 minutes.

6(original). The method of Claim 3 or 5 wherein the solvent is distilled water.

7(original). The method of Claim 3 or 5 wherein the solvent is deionized water.

8(original). The method of Claim 1 wherein the acid is H_2SO_4 and the oxidizing agent is selected from the group consisting of HNO_3, CrO_3, $KMnO_4$, $(NH_4)_2SO_4$, PbO_2, MnO_2, MnO, H_2O_2 and $HClO_4$.

9(currently amended). A method of preparing a graphite intercalation compound comprising:

providing graphite particles;

providing a plating barrel;

placing the graphite particles in the plating barrel;

immersing the plating barrel and the graphite particles contained therein in an aqueous electrolyte media of between about 90 vol.% and 75 Vol.% of 66 Wt.% H_2SO_4 and between about 10 Vol.% and 25 Vol.% of 40 Wt.% HNO_3;

subjecting the immersed graphite particles to a current of approximately 1mA per gram of graphite for between approximately 1 to 60 minutes;

rotating the plating barrel;

rinsing the graphite particles in water for approximately 1 minute; and

drying the graphite particles.

10(original). The method of Claim 9 wherein the water is distilled.

11(original). The method of Claim 9 wherein the water is deionized.

12(original). The method of Claim 9 wherein the graphite particles are dried in a vacuum drier.

13(original). The method of Claim 9 wherein the graphite particles are dried in a filter press.

14(original). The method of Claim 9 wherein the graphite particles are dried in a centrifuge.

15(canceled).

16(currently amended). The method of Claim ~~15~~ 1 or 9 wherein the plating barrel is a wall plating barrel with a +50 mesh opening wall.

17(currently amended). An intercalated graphite made according to claim 1 or 9 and having an expansion volume of from between about 100ml/g to 500 ml/g when subjected to heating of approximately 1000°C for from approximately 1 second to 10 minutes.

18(currently amended). An intercalated graphite made according to claim 1 or 9 and having an expansion volume of from between about 500 ml/g to 2000 ml/g when subjected to heating at approximately 1000°C for from approximately 1 second to 10 minutes.

19(original). The method of Claims 1 or 9 wherein the graphite particles are selected from the group consisting of natural, synthetic, vein, and amorphous graphite, all having a purity of between about 80% and 99.9% LOI.